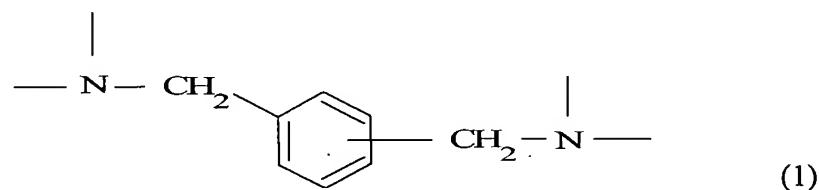


WHAT IS CLAIMED IS:

1. A pneumatic tire comprising a skin layer which is formed by curing a polyurethane resin composition comprising a compound having active hydrogen atoms and an organic polyisocyanate compound, has an oxygen permeation coefficient at 23°C under a relative humidity of 60% of 2.0 ml·mm/m²·day·MPa or smaller and comprises 20% by weight or more of a skeleton structure represented by formula (1):



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2. A pneumatic tire according to Claim 1, which comprises an auxiliary layer which is disposed adjacent to the skin layer and comprises an elastomer having an oxygen permeation coefficient at 23°C under a relative humidity of 60% of 5,000 ml·mm/m²·day·MPa or smaller.

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3. A pneumatic tire according to Claim 3, wherein the auxiliary layer has a thickness in a range of 50 to 500 μm .

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4. A pneumatic tire according to any one of Claims 1 to 3, wherein the compound having active hydrogen atoms is a compound having an odd number of atoms connecting the active hydrogen atoms, and the organic polyisocyanate compound is a compound having an odd number of atoms connecting isocyanate groups.

5. A pneumatic tire according to any one of Claims 1 to 4, wherein the compound having active hydrogen atoms is at least one compound selected from addition products of alkylene oxides to polyamines, polyols having amide group, addition products of polyols to polyisocyanate compounds and polyols.

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6. A pneumatic tire according to Claim 5, wherein the compound having active hydrogen atoms is at least one compound selected from addition products of alkylene oxides to aromatic-aliphatic polyamines, addition products of polyols to aromatic-aliphatic polyisocyanate compounds and aromatic-aliphatic polyols.

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7. A pneumatic tire according to Claim 6, wherein the compound having active hydrogen atoms is at least one compound selected from addition products of alkylene oxides to aromatic-aliphatic polyamines.

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8. A pneumatic tire according to Claim 7, wherein the compound having active hydrogen atoms is an addition product of an alkylene oxide to xylylenediamine.

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9. A pneumatic tire according to any one of Claims 5 to 8, wherein the alkylene oxide is at least one compound selected from alkylene oxides having 2 to 4 carbon atoms.

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10. A pneumatic tire according to any one of Claims 1 to 9, wherein the organic polyisocyanate compound is a reaction product of component (a) and component (b) or a reaction product of component (a), component (b) and component (c) and has at least two NCO groups at ends of a molecule, component (a), component (b) and component (c) being:

- (a) a polyfunctional isocyanate compound,
- (b) at least one polyhydric alcohol selected from polyhydric alcohols having 2 to 10 carbon atoms, and
- (c) at least one compound selected from aromatic polyfunctional amines, aromatic-aliphatic polyfunctional amines, alicyclic polyfunctional amines, aliphatic polyfunctional amines, aliphatic alkanolamines, aromatic polybasic carboxylic acids, alicyclic polybasic carboxylic acids and aliphatic polybasic carboxylic acids.

10 11. A pneumatic tire according to Claim 10, wherein the polyfunctional isocyanate compound of component (a) is at least one compound selected from xylylene diisocyanate and compounds derived from xylylene diisocyanate.

15 12. A pneumatic tire according to Claim 11, wherein the polyfunctional isocyanate compound of component (a) is xylylene diisocyanate.